

HOSTED BY THE KENTUCKY OFFICE OF ENERGY POLICY



### BEFORE WE BEGIN

Presentation materials are for use of the workgroup members.

The presentation will be made available after the workgroup meeting to those attending for information, review, and education.

Presentations will be posted on the Office of Energy Policy Website.

Presentation materials including images, charts, and graphics are not authorized for use on social media or media outlets. For media inquiries related to hydrogen in Kentucky, please contact John Mura with the Kentucky Energy and Environment Cabinet.

Chat Log will be made available to attendees along with attendee information from GoToMeeting.

The meeting will be recorded.

## Meeting Structure and Conduct

Our time is valuable. Be respectful of our time together.

Use the chat function to identify yourself and your organization upon entering the GTM room.

Keep camera off and stay muted to avoid distractions.

Use the chat box for questions or comments

• Someone from OEP staff will be monitoring the chat.

Raise your hand (using GTM Webapp) or turn on your camera if you would like to speak.

Speak to move the conversation forward (THINK).

Use the "parking lot" concept

 There are always opportunities to take conversations offline for follow up or further discussion.





## Invited Stakeholders and Attendees\*

\* if you are not on the list please add to chat log

University of Louisville
University of Kentucky
Kentucky Geological Survey
Electric and Natural Gas Utilities
KY Association of Electric Cooperatives
KY Oil and Gas Association
KY Gas Association
KY Coal Association
KY Association of Manufacturers
Chemical Industries Council
American Petroleum Institute KY Chapter

Kentucky Industrial Utility Customers
Shaping of Appalachian Region
KY Conservation Committee
Kentucky Resources Council
Fuel Cell and Hydrogen Energy Association
Kentucky Association of Counties
KY Trucking Association
KY Chamber of Commerce
KY CED

Toyota	
Ford	l
Amazon	(
CVG, LEX, and SDF Airports	ı
UPS	
NGL Supply	
GE Power	,
Mitsubishi Power	_
Air Products	
Westlake	l
Corning	I
Chemours	
Century Aluminum	
KYTC	I

yOta	Marathon	
rd	Maratrion	
nazon	Orsted Energy	
G, LEX, and SDF Airports	Donovan energy	
S	σ,	
SL Supply	Fireborn Energy	
Power	Arcadis	
tsubishi Power	TC Energy	
Products	ic Lifergy	
estlake	EEC Staff	
rning	KY PSC Staff	
emours		
ntury Aluminum	U.S. DOE Liaison	
TC	KY Governor's Office	

## Goals of the Workgroup

#### Today's Objectives:

- To begin building relationships and gathering information.
- Introduce the concept of a Kentucky Hydrogen Hub and a hydrogen ecosystem.
- Understand funding and incentive opportunities.

#### Long Term Goals:

- Position Kentucky as a regional leader for hydrogen project investment and development.
- Build relationships that enable hydrogen economic development opportunities.
- Identify hydrogen projects for funding under the Infrastructure Investment and Jobs Act (IIJA)



## ABOUT EEC

Our vision is a Commonwealth where every Kentuckian has an opportunity to realize their greatest potential supported by government actions that holistically address our energy, environmental and natural resource needs without compromising the ability of future generations to meet theirs.

Our mission is to Improve the quality of life for all Kentuckians by protecting our land, air, and water resources; by utilizing our natural resources in an environmentally conscientious manner; by helping families connect with nature and preserving the Commonwealth's natural heritage; and by supporting innovative, resilient, and sustainable energy solutions that together bring economic benefit to the commonwealth.



## Kentucky Office of Energy Policy (OEP)

Vision of the OEP is to be a leader in providing effective, creative, and flexible pathways forward to address our energy needs in a holistic and integrated manner.

The Kentucky Office of Energy Policy (OEP) is Kentucky's non-regulatory State Energy Program.

• Established by the Kentucky Legislature during 2018 legislative session through a reorganization of the Department for Energy Development and Independence ("DEDI") with the legislative directives identified in KRS 152.712, the OEP is designated as the state authority on energy policy issues affecting the citizens of the Commonwealth.

*Mission* is to utilize all of Kentucky's energy resources for the betterment of the Commonwealth while protecting and improving our environment.

- 1. Provide policy and technical assistance to the Commonwealth and leadership on energy issues.
- 2. Administer grant programs across the Commonwealth to support the state's energy goals: Affordability, Reliability, and Resilience.
- 3. Monitor, track, and analyze energy data and policies nationwide and in Kentucky to proactively identify trends, opportunities, and potential issues affecting Kentucky's energy sector.
- 4. Increase energy literacy by proactively leveraging communication pathways and a variety of stakeholders to deliver relevant and reliable energy information across the Commonwealth.
- 5. Oversee the state Energy Assurance Plan and support the Kentucky Emergency Operations Center during energy disruptions.

## Our Work Products



#### Coal Facts

Kentucky Coal Facts is produced by the Office of Energy Policy in partnership with the Kentucky Coal Association.





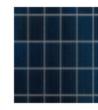
#### **Kentucky Energy Profile**

The Kentucky Energy and Environment Cabinet and the Office of Energy Policy offer the Kentucky Energy Profile to provide an overview of energy consumption and production within the Commonwealth, to serve as an impartial point of reference for the general public, researchers, and policy makers, and to serve as a foundation for discussing Kentucky's energy future.



#### Southern States Energy Board Regional Profiles

Every two years, the team at the Office of Energy Policy produces the Southern States Energy Board Regional Profiles: a comprehensive report on the Southeast's energy landscape



#### **Distributed Energy Resources**

Data collected from Kentucky's regulated utilities, the Tennessee Valley

Authority, and municipal utilities. This data includes net metering and other
non net-metered renewable systems and excludes utility owned projects.



#### Microgrids and Resilience in Kentucky

The Office of Energy Policy partnered with the Smart Electric Power Alliance (SEPA) to conduct a study to identify opportunities for deploying microgrids to increase the overall resilience for the state of Kentucky.



#### Kentucky Solar Tool Kit

Solar projects have continued to grow across the Commonwealth and our Office has designed this toolkit to answer frequently asked questions from developers to local governments and everyone in between.



#### Solar Site Suitability Tool

This is the platform for exploring solar site suitability across Kentucky including identifying potential opportunities with previous lands used for mining



January 28, 2022 KY REGIONAL HYDROGEN HUB WORKGROUP

# Interactive Data Products



#### **Quarterly Coal Dashboard**

An interactive version of our Quarterly Coal Report publication. Updated weekly.





#### Kentucky Energy Dashboard

ArcGIS story map with direct links to metrics from the Energy Information Administration, national laboratories, and others.





### Power Plant Retirements and Additions

Dashboard displaying past power plant retirements, planned power plant retirements, and planned power plant additions.





#### **Operating Power Plants Dashboard**

Map and summary of national power plants by fuel type.





#### Situational Awareness Dashboard

Aggregation of latest publicly available commodity prices courtesy of the Energy Information Administration.





#### Distributed Generation Data Dashboards

Interactive maps and visualizations that summarize and display information on distributed generation by Kentucky county.



# KYE<sup>3</sup>: Designs for a Resilient Economy

KYE<sup>3</sup>: ENERGY, ENVIRONMENT, & ECONOMIC DEVELOPMENT

An economy built on our past, answering the needs of today, and equipping us for tomorrow's opportunities

https://eec.ky.gov/Energy/Pages/default.aspx



## KYE<sup>3</sup> Starts with Communities





Ensure the resilience of our critical facilities



Support sustainable community development



Identify new sustainable fossil fuel opportunities



Assess climate risk

## KYE<sup>3</sup> Goals













## Manufacturing a Resilient Economy

Work with existing manufacturers to meet new energy supply chain needs Incentivize sustainable business investments including hydrogen and other renewable fuels

Commercialize critical mineral recovery operations

Attract coal-toadvanced carbon product opportunities Recruit R&D and industry innovation facilities

Develop carbon capture utilization and sequestration (CCUS) industries

Increase big data processing capabilities

Manufacture the software and equipment that support a smart, secure infrastructure

Incentivize advanced manufacturing opportunities in key sectors like electric vehicles



## Fueling a Diverse Energy Economy



Create alternative fuel transportation corridors

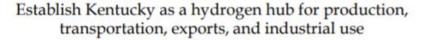


Grow renewable gas and liquid fuels such as sustainable aviation fuels



Engage in regional and international partnerships







## Building Next Generation Infrastructure

Support alternative fuel transportation infrastructure

Encourage resilient,gridconnected buildings

Accommodate renewable products, hydrogen, and carbon dioxide

Grow the infrastructure to capture, transport, and utilize methane

Plan for an electric transmission grid that supports growing renewable resources Create an electric distribution grid that is self-healing, selfsufficient, and autosensing

Ensure a physical and cyber-secure infrastructure

Support a diversified energy supply that is fuel secure, sustainable, and resilient



## How is it different than other strategies?

#### It is flexible

It offers choices rather than a one size fits all solution

It is built on community engagement and participation

It is actionable though partnerships and innovation

#### Our role is to

- listen,
- provide support,
- facilitate connections, and
- remove barriers



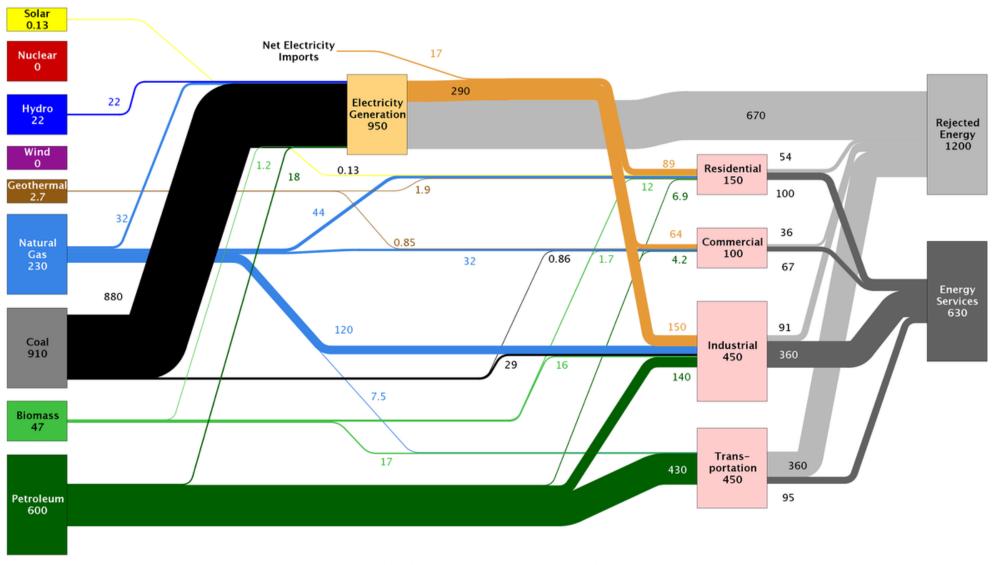
# Energy Landscape and H<sub>2</sub>

REVIEW OF KEY CONCEPTS



#### Estimated Kentucky Energy Use In 2012 ~1800 Trillion BTU



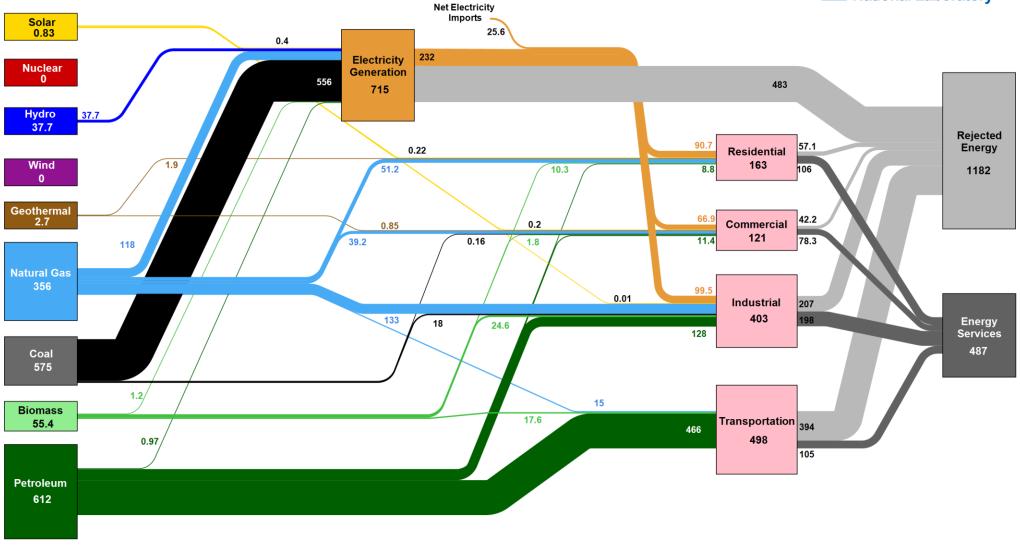


Source: LLNL 2013. Data is based on DOE/EIA-0214(2011), June 2013. If this information or a reproduction of it is used, credit must be given to the Lawrence Livermore National Laboratory and the Department of Energy, under whose auspices the work was performed. Distributed electricity represents only retail electricity sales and does not include self-generation. EIA reports flows for non-thermal resources (i.e., hydro, wind and solar) in BTU-equivalent values by assuming a typical fossil fuel plant "hear rate." The efficiency of electricity production is calculated as the total retail electricity delivered divided by the primary energy input into electricity generation. Interstate and international electricity trade are lumped into net imports or exports and are calculated using a system-wide generation efficiency. End use efficiency is estimated for each sector as 65% residential, 65% commercial, 80% industrial and 21% transportation. Totals may not equal sum of components due to independent rounding. LLM-M-410527



#### Kentucky Energy Consumption in 2019: 1670 Trillion BTU

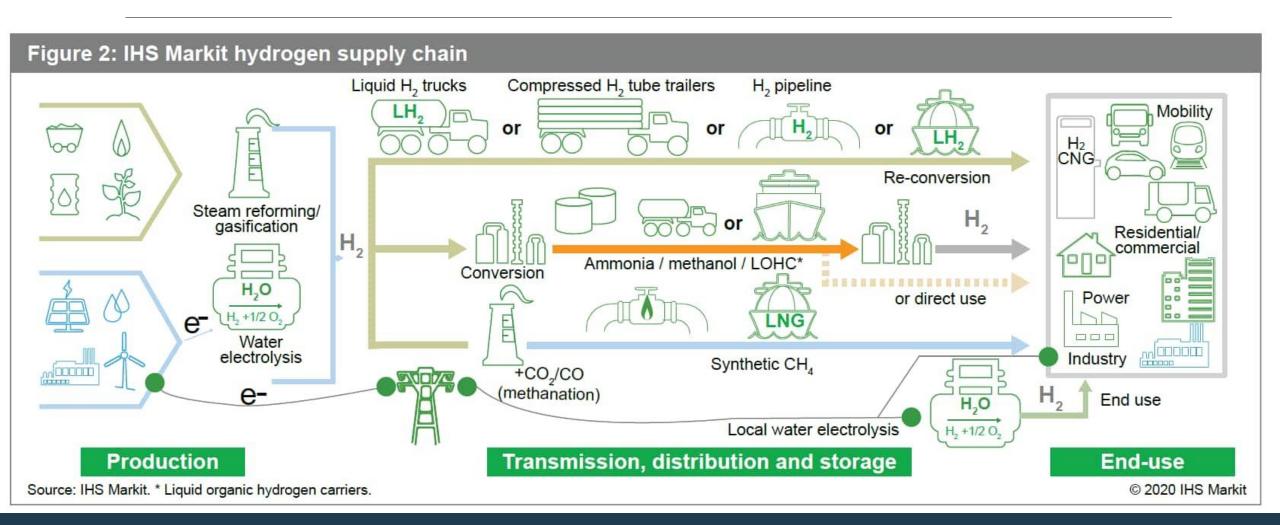




Source: LLNL August, 2021. Data is based on DOE/EIA SEDS (2019). If this information or a reproduction of it is used, credit must be given to the Lawrence Livermore National Laboratory and the Department of Energy, under whose auspices the work was performed. Distributed electricity represents only retail electricity sales and does not include self-generation. EIA reports consumption of renewable resources (i.e., hydro, wind, geothermal and solar) for electricity in BTU-equivalent values by assuming a typical fossil fuel plant heat rate. The efficiency of electricity production is calculated as the total retail electricity delivered divided by the primary energy input into electricity generation. End use efficiency is estimated as 0.65% for the residential sector, 0.49% for the industrial sector, and 0.21% for the transportation sector. Totals may not equal sum of components due to independent Rounding. LLNL-MI-410527

## Unraveling the Hydrogen Supply Chain

https://ihsmarkit.com/research-analysis/the-role-of-hydrogen-in-a-deeply-decarbonized-future.html



## The Language of Hydrogen

	Terminology	Technology	Feedstock/ Electricity source	GHG footprint*	
PRODUCTION VIA ELECTRICITY	Green Hydrogen		Wind   Solar   Hydro Geothermal   Tidal	Minimal	
	Purple/Pink Hydrogen	Electrolysis	Nuclear		
	Yellow Hydrogen		Mixed-origin grid energy	Medium	
PRODUCTION VIA FOSSIL FUELS	Blue Hydrogen	Natural gas reforming + CCUS Gasification + CCUS	Natural gas   coal	Low	
	Turquoise Hydrogen	Pyrolysis	Natural	Solid carbon (by-product)	
	Grey Hydrogen	Natural gas reforming	Natural gas	Medium	
	Brown Hydrogen	Gasification	Brown coal (lignite)	High	
	Black Hydrogen	Gasincation	Black coal	riigii	

#### Source:

https://globalenergyinfr astructure.com/articles/ 2021/03march/hydrogen-datatelling-a-story/





## Relevant Announcements and Work

AIR PRODUCTS TO BUILD AND OPERATE NEW HYDROGEN PLANT AT MARATHON ASHLAND PETROLEUM'S CATLETTSBURG, KENTUCKY REFINERY (2003)

Kroger Sustainability Program Finds Hydrogen Fuel Cell Technology Is Robust, Reliable, SAFE (2014)

AT&T Deploys Fuels Cells for Cell Tower Back Up Power, including locations in KY (2015)

Airgas Announced to build a liquid hydrogen plant in Calvert City (2014)

Toyota to Assemble Fuel Cell Modules at Kentucky Plant in 2023

LG&E and KY and UK CAER Collaborating to create net-negative CO2 emissions

U of L Conn Center for Renewable Energy Research Photoelectrochemical Water Splitting

NETL Investigating Pathways to an Appalachian Hydrogen Economy

<u>Hydrogen Forward is a coalition of companies and organizations across the hydrogen value chain</u>

Utah Coal Power Plant to Convert to Hydrogen Power Facility

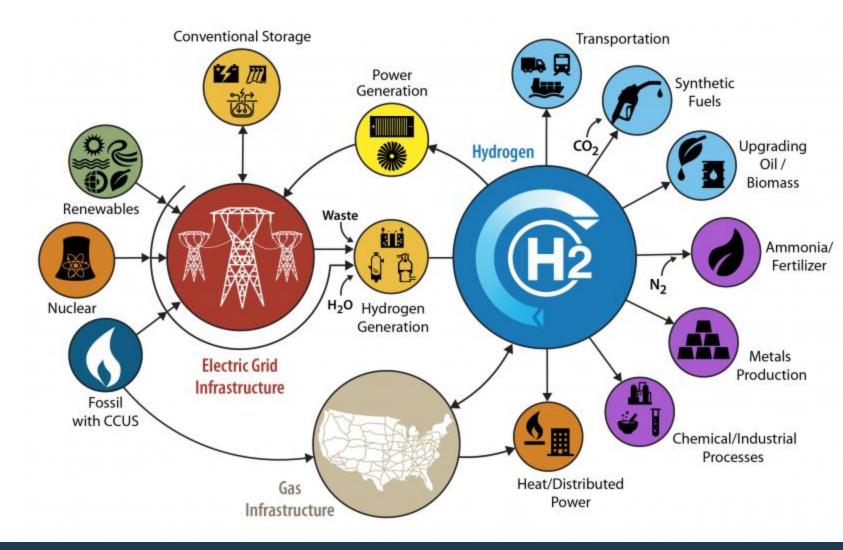
How Georgia is getting in on ground floor of hydrogen fuel industry





H2@Scale is a U.S.
Department of Energy (DOE) initiative that brings together stakeholders to advance affordable hydrogen production, transport, storage, and utilization to enable decarbonization and revenue opportunities across multiple sectors.

#### https://www.energy.gov/eere/fuelcells/h2scale





## Hydrogen







1 Kilogram



1 Decade

The first Energy Earthshot, launched June 7, 2021—Hydrogen Shot—seeks to reduce the cost of clean hydrogen by 80% to **\$1** per **1 kilogram** in **1 decade** ("**1 1 1**").

The Hydrogen Shot establishes a framework and foundation for clean hydrogen deployment in the <u>American Jobs Plan</u>, which includes support for demonstration projects. Industries are beginning to implement clean hydrogen to reduce emissions, yet many hurdles remain to deploying it at scale.



Exhibit 5
Hydrogen applications road map

2020-2022	2023-2025	2026-2030	2031 and beyond
Immediate next steps	Early scale-up	Diversification	Broad rollout
Applications			
			Under development (e.g., pilots) or early commercialization  Mature market
Transportation	Light-duty passenger		ambitions
fuel	vehicles		ambitions
	Light commercial vehicles/buses Medium- and heavy-duty trucks	Rail	Centralized power CCU
Material handling/	N.		Pure H <sub>2</sub> Steel heating Low-
forklifts	Distributed power (other segments)	Blended H <sub>2</sub>	carbon fuel <sup>2</sup>   Low/ medium industrial heat
Power (e.g., data of	power		Low- carbon
Power (e.g., data or generation	enters)		fuel <sup>1</sup> Existing
and grid balancing	B		feedstock High- grade industrial
	Engineering analysis and pilot testing		heat
	( )		
	R&D		
Fuel for residential and	invest	ment Pilot testing	
commercial			TAN
buildings			R&D
			investment and pilot testing
	- 1. 16		and phot testing
	Feedstock for industry and long-		
	distance transport		Fuel for industry

# Road Map to a US Hydrogen Economy Developed by the Fuel Cell and Hydrogen Energy Association



DGEN HUB WORKGROUP 26

How and where does your organization fit into the hydrogen supply chain?

What assets can you bring to the hydrogen supply chain in Kentucky?

Reflection Questions

## BREAK

5 MINUTES TO REFUEL





# Current Financial Incentives and Programs

Federal Hydrogen Laws and Incentives

#### **Kentucky Incentives**

Alternative Fuel Production Tax Incentives - Kentucky Enterprise Initiative Act (KEIA)

<u>Alternative Fuel Production Tax Incentives - Kentucky Business Investment (KBI) Program</u>

#### **KY Science and Technology Corporation**

- Research and Commercialization
- Business Advancement
- Workforce Development



# Federal Infrastructure Funding (IIJA) Opportunities

#### **Hydrogen Research and Development**

- Section 40313 Clean Hydrogen R&D Program in consultation with private sector
- Section 813: Regional Clean Hydrogen Hubs (\$8 Billion) See handout summary
- Section 815: Provisions for Clean Hydrogen Manufacturing (\$500 Million)

#### Section 40209: Advanced Energy Manufacturing in Coal Impacted Communities (\$750 Million)

- Not later than 180 days after the date of enactment of this Act, the Secretary shall establish a program to award grants to eligible entities to carry out qualifying advanced energy projects
  - Refer to briefing sheet on this program

#### Section 14511 Appalachian Regional Energy Hub Initiative

- (1) to conduct research and analysis regarding the economic impact of an ethane storage hub in the Appalachian region that supports a more-effective energy market performance due to the scale of the project;
- (2) with the potential to significantly contribute to the economic resilience of the area in which the project is located; And
- (3) that will help establish a regional energy hub in the Appalachian region for natural gas and natural gas liquids, including **hydrogen** produced from the steam methane reforming of natural gas feedstocks.

# Regional Hydrogen Hub

INFRASTRUCTURE FUNDING OVERVIEW



## Definition

#### "SEC. 813. REGIONAL CLEAN HYDROGEN HUBS.

"(a) Definition of Regional Clean Hydrogen Hub.—In this section, the term 'regional clean hydrogen hub' means a network of clean hydrogen producers, potential clean hydrogen consumers, and connective infrastructure located in close proximity.



# Program Goals

- "(b) Establishment of Program.—The Secretary shall establish a program to support the development of at least 4 regional clean hydrogen hubs that—
  - "(1) demonstrably aid the achievement of the clean hydrogen production standard developed under section 822(a);
  - "(2) demonstrate the production, processing, delivery, storage, and end-use of clean hydrogen; and
  - "(3) can be developed into a national clean hydrogen network to facilitate a clean hydrogen economy.



## Solicitation of Proposals

"(c) Selection of Regional Clean Hydrogen Hubs.—

"(1) Solicitation of Proposals.—Not later than 180 days after the date of enactment of the Infrastructure Investment and Jobs Act, the Secretary shall solicit proposals for regional clean hydrogen hubs.



## Selection of Hubs

"(2) Selection of hubs.—Not later than 1 year after the deadline for the submission of pro-

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posals under paragraph (1), the Secretary shall select at least 4 regional clean hydrogen hubs to be developed under subsection (b).

- "(3) Criteria.—The Secretary shall select regional clean hydrogen hubs under paragraph (2) using the following criteria:
  - "(A) FEEDSTOCK DIVERSITY.—To the maximum extent practicable—
    - "(i) at least 1 regional clean hydrogen hub shall demonstrate the production of clean hydrogen from fossil fuels;
    - "(ii) at least 1 regional clean hydrogen hub shall demonstrate the production of clean hydrogen from renewable energy; and
    - "(iii) at least 1 regional clean hydrogen hub shall demonstrate the production of clean hydrogen from nuclear energy.



"(B) End-use diversity.—To the maximum extent practicable—

"(i) at least 1 regional clean hydrogen hub shall demonstrate the end-use of clean hydrogen in the electric power generation sector;

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1553

"(ii) at least 1 regional clean hydrogen hub shall demonstrate the end-use of clean hydrogen in the industrial sector;

- "(iii) at least 1 regional clean hydrogen hub shall demonstrate the end-use of clean hydrogen in the residential and commercial heating sector; and
- "(iv) at least 1 regional clean hydrogen hub shall demonstrate the end-use of clean hydrogen in the transportation sector.



- "(C) Geographic diversity.—To the maximum extent practicable, each regional clean hydrogen hub—
  - "(i) shall be located in a different region of the United States; and
  - "(ii) shall use energy resources that are abundant in that region.



"(D) Hubs in natural gas-producing regions.—To the maximum extent practicable, at least 2 regional clean hydrogen hubs shall be located in the regions of the United States with the greatest natural gas resources.



"(E) Employment.—The Secretary shall give priority to regional clean hydrogen hubs

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that are likely to create opportunities for skilled training and long-term employment to the greatest number of residents of the region.



## End Use Application Funding

- Grants for Charging and Fueling Infrastructure \$2.5 billion FY22-FY26(Section 11401)
  - Grants to state, local, and public entities to install alternative fuel infrastructure along FHWA-designated Alternative Fuel Corridors
  - 50% of program funds will be dedicated to "Community Grants" for publicly accessible alternative fuel charging/fueling projects outside of Alternative Fuel Corridors, with priority to rural, LMI and underserved communities, and multi-unit dwellings
- Carbon Reduction Program (Section 11403)
  - To include efforts to reduce impacts of freight movement and projects to deploy alternative fuel vehicles and reduce emissions at ports
- Reduction of Truck Emissions at Port Facilities (Section 11402) \$250 million
- Energy Efficiency Revolving Loan Fund Capitalization Grant Program (INSULATE) \$250 million for FY22 to states (Section 40502)
  - Would establish a revolving loan fund within SEP with capitalization grants to State Energy Offices for commercial and residential energy efficiency loan fund and audits
- Energy Efficiency and Conservation Block Grant Program (EECBG) \$550 million (Section 40552)
  - Local government program for energy efficiency and conservation

### Continued

### **Electricity Infrastructure**

- Grid Infrastructure, Resilience, and Reliability \$5 billion for FY22-FY26 (Section 40101)
- Program Upgrading Our Electric Grid and Ensuring Reliability and Resiliency \$5 billion for FY22-FY26 (Section 40103)
- Energy Improvement in Rural or Remote Areas, and Energy Infrastructure Resilience Framework \$1 billion for FY22-FY26 (Section 40103)



### IIJA: Program Supporting Hydrogen Projects

### **Carbon Capture, Utilization, and Sequestration**

- CCSUS Utilization Program \$300 million (Section 40301, Section 40302)
- Carbon Capture Technology Program \$100 million for FY22-26 (Section 40303) o For design, engineering for CO2 transport infrastructure
- Carbon Dioxide Transportation Infrastructure Finance and Innovation (Section 40304) o Loan and loan guarantees program of \$600 million each FY22, FY23; \$300 million each FY24, FY25, FY26 S
- Secure Geologic Storage Permitting \$50 million for FY22-FY26 in State Grants through EPA (Section 40306)

### **Nuclear Energy Infrastructure**

- Funding and technical assistance for siting micro-reactors, small modular, and advanced nuclear reactors (Section 40321)
- Discussion of zero-emission payment credits from states (Section 40323) in assessing economic viability of reactor



# IIJA: Program Supporting Hydrogen Projects (con't)

**Building energy codes technical assistance and training** - \$225 million for FY22-FY26 (Section 40511)

To be awarded by DOE to a variety of state (State Energy Offices and/or building code agencies), local, non-profit and other partners. Assistance can be used to address implementation needs in rural, suburban and urban areas. Includes related topics code updates, addition to or alteration of existing buildings, cost effective, high-performance and net zero energy buildings, improving resilience, health and safety, water savings and environmental impacts, and the economic impact of energy codes



## Relevant Funding Announcements & News

U.S. Department of Energy Invests in a Clean Hydrogen Pathway for Wyoming

DOE-FOA-0002663

The Department of Energy National Energy Technology Laboratory intends to amend Funding Opportunity Announcement No. DE-FOA-0002400 "Clean Hydrogen Production, Storage, Transport and Utilization to Enable a Net Zero Carbon Economy," previously titled "Fossil Energy Based Production, Storage, Transport and Utilization of Hydrogen Approaching Net-Zero or Net-Negative Carbon Emissions". The Department of Energy (DOE) National Energy Technology Laboratory (NETL) intends to amend Funding Opportunity Announcement (FOA) No. DE-FOA-0002400 on behalf of the Office of Fossil Energy and Carbon Management (FECM) in the first quarter of 2022 calendary year.

# Department of Energy's Loan Programs Office (LPO)

Biden Energy Loan Revamp Starts With \$1 Billion for Hydrogen







## Proposed Workgroup Schedule and Format

Every other month virtual meetings of the entire group.

Off months for homework and small group activities.

- Production subgroup
- Transmission, Distribution and Storage subgroup
- End use applications subgroup

Creation of a workgroup virtual environment for collaboration, dialogue and document sharing.

Use of surveys to collect workgroup information.

YES, No, Maybe?



### Discussion Questions

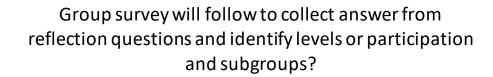
What information or topics relating to hydrogen do you need more information on for the March meeting?

What does your organization need to begin project discussions in Kentucky?



## Next Steps







**Group Homework** 



## Reading Homework

Hydrogen and Carbon Capture Conference April 21, 2022 <a href="https://www.appahydrogencarbon.com/">https://www.appahydrogencarbon.com/</a>

### **Energy Futures Reports:**

- The Potential for Clean Hydrogen in the Carolinas
- The Future of Clean Hydrogen in the United States
- Ohio River Valley Hydrogen and CCS Hub Market Formation

Western Green Hydrogen Initiatives

Midwestern Hydrogen Partnership



## Build Your Hydrogen Action Plan

	Project Actions Now (1-12 months)	Intermediate Actions (2-4 years)	Long Term Actions (5+)
Production			
Transmission, Distribution, and Storage			
End Use Applications			



### Call to Action: H2 Matchmaker

H2 Matchmaker is an online information resource to assist hydrogen suppliers and users identify opportunities to expand development toward realizing regional hydrogen hubs.

A regional hydrogen hub is a network of hydrogen producers, potential or actual hydrogen consumers, and connective infrastructure located in close proximity.

#### H2 Matchmaker will:

- Increase hydrogen and fuel cell regional project awareness for technology developers and suppliers.
- Support private sector development of hydrogen production, storage, and transportation infrastructure and fuel cell deployment by region.
- Facilitate regional business development opportunities by providing hydrogen supply and demand maps for current and planned projects.

### H2 Matchmaker

H2 Matchmaker Self-Identification Form

To include your hydrogen activity or activities in H2 Matchmaker, please fill out the H2 Matchmaker form.

If your organization has many ongoing or planned activities (such as a network of fueling stations) that would be onerous to enter in the form, or if your activities are difficult to geolocate (such as a hydrogen pipeline), please email the H2 Matchmaker team at H2Matchmaker@ee.doe.gov.

#### Contact

To suggest specific improvements or best practices that may be implemented through H2 Matchmaker, or for questions about H2 Matchmaker, email the H2 Matchmaker team at <a href="https://example.com/H2Matchmaker@ee.doe.gov">H2Matchmaker@ee.doe.gov</a>.



### Contact Information

Kenya Stump

Executive Director, OEP

Kenya.stump@ky.gov

